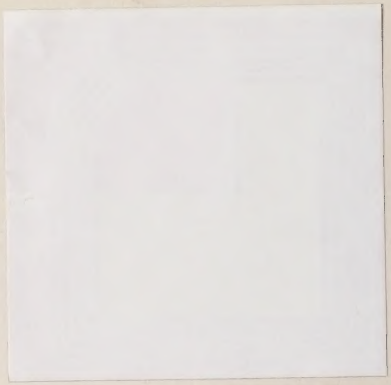
# NATIONAL DEVELOPED DYES FOR COTTON YARN

NATIONAL ANILINE & CHEMICAL CO.
INCORPORATED
NEW YORK



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*Executive Offices of the*

National Aniline & Chemical Co., Inc.

*located at*

40 Rector Street, New York

# NATIONAL DEVELOPED DYES FOR COTTON YARN

SPECIAL
TP
930
N271
19--

No. 226

MANUFACTURED BY

**NATIONAL ANILINE & CHEMICAL COMPANY, INC.**

40 Rector Street — New York, N. Y.

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# NATIONAL DEVELOPED DYES FOR COTTON YARN

THE Developed dyes, like other Direct dyes, are readily applied to all forms of vegetable fibers and, by the further operations of diazotization and development, yield shades which, as a class, possess good fastness to washing.

The developer most commonly used is National Developer B, followed in order by National Developer DB and National Developer Z. Since each developer yields a different shade and since the developed shade differs from the direct shade, there is shown in this book the direct dyeing of each dyestuff, together with three developed dyeings in varying strengths, applying the developer most commonly used with the dye in question. Also shown is one dyeing produced with each of the other developers.

## METHOD OF APPLICATION

### Preparation of the Material

The cotton should be thoroughly and uniformly boiled out in the usual manner using caustic soda or soda ash and National Avirol AH Extra or National Naccosol B. For light or brilliant shades or for goods that subsequently are to be discharged, the material should be bleached.

### Dissolving the Dyestuff

Boiling water is poured over the dyestuff and, after stirring well, the solution is strained through a fine cloth or sieve.

### Dyeing

Dyeing is carried out in the usual manner for Direct dyes using National Avirol AH Extra or National Naccosol B and common salt or Glauber's salt as dyeing assistants.

Dyeing is started at 110°-120°F., the temperature raised slowly to about 200° F., and dyeing continued at this temperature for thirty to forty-five minutes. The material then is thoroughly rinsed in cold water after which it passes to the diazotizing operation.

## Diazotizing

There are two points that should be observed particularly in preparing the diazotizing bath:

1. The bath should be used immediately after it is prepared.
2. Cold water should be used throughout and the ingredients well diluted before being added to the bath.

The bath is prepared by adding to the machine or vat which contains the full amount of cold water:

1–3% Sodium Nitrite
3–5% Sulfuric Acid (168° Tw.) or
5–7½% Hydrochloric Acid (32° Tw.)

The material then is entered and worked cold for fifteen to twenty minutes. It should be protected from direct sunlight while in the diazotized state.

The material then is thoroughly rinsed in cold water to remove any excess diazotizing liquor and entered into the developing bath.

## Developing

1. Using National Developer B
   0.5—1.0% National Developer B is pasted with half its weight of caustic soda, previously dissolved; hot water is added and solution effected by boiling.
2. Using National Developer DB
   0.5–2.0% National Developer DB is pasted with a solution of an equal weight of soda ash and dissolved with hot water.
3. Using National Developer Z
   0.5–2.0% National Developer Z is pasted with a solution of an equal weight of soda ash, hot water is added and the whole boiled until solution is complete.

The solution of the particular developer to be used then is added to the machine or tub which contains the full amount of cold water to be used.

The diazotized material is entered into the developing bath and worked cold for fifteen to twenty minutes. The material then is thoroughly rinsed in cold water, soaped for ten to fifteen minutes at 160°-180° F., using 3% chip soap, rinsed well and dried.

## Developed Dyes Best Adaptable for Discharge with Hydrosulfite

National Diazine Fast Yellow 2G
National Diazine Orange 3G
National Diazine Orange G
National Diazine Orange WD
National Diazine Orange 2R
National Diazine Scarlet R
National Diazine Scarlet A
National Diazine Red 7BL
National Diazine Bordeaux 2BL
National Diazine Violet BL
National Diazine Brown R
National Developed Sky Blue 3G
National Diazine Blue BR
National Developed Brilliant Blue BBL
National Diazine Blue NA Conc.
National Diazine Green 3G
National Developed Brilliant Green 3G
National Diazine Black OB
National Diazine Black S Extra
National Diazine Black DR
National Diazine Black H Extra
National Diazine Black V
National Diazine Black VJ Conc.

## Developed Dyes Leaving Acetate Rayon Effects Practically Clear

National Diazine Fast Yellow 2G
National Developed Brilliant Orange 5G Extra
National Diazine Orange 2R
National Diazine Red 5BL
National Diazine Red 7BL
National Diazine Bordeaux 2BL
National Diazine Violet BL
National Developed Brilliant Blue BBL
National Diazine Blue BR
National Diazine Green 3G
National Developed Brilliant Green 3G
National Diazine Black OB
National Diazine Black H Extra
National Diazine Black V
National Diazine Black VJ Conc.

*The statements made herein with respect to our several products are expressions of our opinion, based upon careful tests and investigations, and are not warranties.*

| National Developed Dyes for Cotton Yarn | Dyeing Used for Fastness Tests | FASTNESS TO: Light | | | | Washing | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Direct | With Developer | | | Direct | With Developer | | |
| | | | B | DB | Z | | B | DB | Z |
| National Diazine Fast Yellow 2G | 1% | — | P | P | F | — | G | G | G |
| National Developed Brilliant Orange 5G Ex. | 1% | G | M-F | M | G | P | M | M | P |
| National Diazine Orange 3G | 1% | VG | F | M-F | VG | F | F | F | F |
| National Diazine Orange G | 1% | VG | M-F | P-M | VG | M | G | G | F |
| National Diazine Orange WD | 1% | G-VG | G | F | VG | M | F | F | F |
| National Diazine Orange | 1% | M | P | P | M | P | M | M | M |
| National Diazine Orange 2R | 1% | G | F | M | F | M | F | F-G | F |
| National Diazine Scarlet R | 1% | P | P | P | P | M | F | F | F |
| National Diazine Scarlet A | 1% | P | P | P | P | P | M | M | M |
| National Diazine Red 5BL | 1% | F | M | P | P | P-M | F | F | F |
| National Diazine Scarlet 2BL | ½% | P | P | P | P | F | G-VG | G | F |
| National Primuline NAC | 1% | M | P | P | G | F | G | G | M |
| National Diazine Red 7BL | 1% | F | M-F | P-M | M-F | P | F | M | P-M |
| National Diazine Bordeaux 2BL | 1% | G | F | M | F | P | F | F | P-M |
| National Diazine Bordeaux 7B Conc | 1% | P | P | P | P | F | G | G | M |
| National Diazine Violet BL | 1% | P | P | P | P | F-G | G-VG | G-VG | F-G |
| National Erie Fast Brown 3RB | 1% | F | P | P | P | P | M | M | M |
| National Diazine Brown R | 1% | VG | VG | VG | VG | F | G | G | F |
| National Diazine Brown 6G | 1% | VG | G | G | VG | F | F | F | F |
| National Developed Brilliant Blue BBL | 1% | P | M | P | P | P | G | E | F |
| National Developed Sky Blue 3G | 1% | P | P | P | P | M | G | F | F |
| National Diazine Blue BR | 1% | VG | VG | G | G | P | F | F | M-F |
| National Diazine Blue NA Conc | 1% | G | G-VG | G | G-VG | M | G | F | F |
| National Diazine Green 3G | 1% | P | P | P | P | M | G | F | F |
| National Developed Brilliant Green 3G | 1% | P | P | P | P | M | F | G | F |
| National Diazine Black OB | 1% | P | P | P | P | M | F-G | F | F |
| National Diazine Black OB | 8% | — | — | G | — | — | — | G | — |
| National Diazine Black S Extra | 1% | F | F-G | M | P | P | G-VG | F-G | F |
| National Diazine Black S Extra | 8% | — | — | G-VG | — | — | — | G | — |
| National Diazine Black DR | 1% | M-F | P | P | P | P | F-G | F | M |
| National Diazine Black DR | 8% | — | — | F-G | — | — | — | F-G | — |
| National Diazine Black H Extra | 1% | M | P | P | P | M | G | F-G | M |
| National Diazine Black H Extra | 8% | — | — | F-G | — | — | — | G | — |
| National Diazine Beta Black N | 1% | P | P | P | P | P | F | F | F |
| National Diazine Beta Black N | 8% | — | F-G | — | — | — | G | — | — |
| National Diazine Black V | 1% | P-M | P | P | P | P | F | G | F |
| National Diazine Black V | 8% | — | — | G | — | — | — | G | — |
| National Diazine Black VJ Conc | 1% | M | P | P-M | P | P-M | F-G | F-G | F |
| National Diazine Black VJ Conc | 8% | — | — | G | — | — | — | G | — |

Key: E—Excellent, VG—Very Good, G—Good, F—Fair,

## FASTNESS TO:

| Cross Dyeing | | | | Alkaline Discharge | | | | Neutral Discharge | | | | Hot Pressing | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direct | With Developer | | | Direct | With Developer | | | Direct | With Developer | | | Direct | With Developer | | |
| | B | DB | Z | | B | DB | Z | | B | DB | Z | | B | DB | Z |
| — | E | E | E | — | G | VG | F | — | G | VG | G | — | G | G | E |
| P | F | F | F | P | P | P | P | M | M | M | M | E | G | E | E |
| M | F | G | F | F | F | F | F | VG | E | E | E | E | E | E | G |
| F | VG | E | G | M-F | P | P | P | E | E | E | VG | E | G | E | E |
| M | G | G | F | G | VG | G | F | E | E | E | E | E | E | G | G |
| P | VG | VG | F | F | F | G | F | F | F | F-G | F | G | G | G | G |
| P | E | E | VG | M | M | M | M | E | VG | E | VG | G | G | G | G |
| F | VG | VG-E | VG | G-VG | G | G-VG | G | E | G | VG | F-G | G | F | F | G |
| P | M | F | M | G | G | VG | F | VG | G-VG | VG | F | G | G | F | G |
| P | F | G | M | F | F | F | F | F | F | F | F-G | G | G | G | G |
| M | G | E | M | F | F | F-G | F | F | F | F | F | G | G | F | G |
| M-F | G | G-VG | G | ND | ND | ND | ND | ND | ND | ND | ND | G | G | F | G |
| P | M | F | M | VG | VG | VG | F | VG | VG | VG | F | G | F | G | G |
| P | M | F | M | VG | E | E | G | VG | E | VG-E | G | G | M | M | M |
| P-M | F | E | M | F | F | F | F | F | F-G | F | F | F | F | M | F |
| F | G | VG | F-G | E | E | VG | VG | VG | VG | VG | G-VG | F | F | F | F |
| P | M | M | P | F-G | G | G | F | F-G | G | G | F | F | F | F | F |
| M | M-F | F | F | G | G | G | M | VG | VG-E | VG-E | VG | E | E | G | G |
| P | P-M | P | M | ND | ND | ND | ND | P | P | P | P | G | G | F | G |
| P | F | M | M | VG | VG | VG | G | E | E | E | E | G | G | M | G |
| M | F | F | M | VG | E | G | VG | VG | E | VG | VG-E | G | G | G | G |
| P | M | M | M | VG-E | E | E | G | E | E | E | E | G | G | G | G |
| P | M | M | P | VG-E | E | VG | M | VG | E | E | G | F | G | F | G |
| F | E | VG | VG | E | VG | VG | E | VG-E | E | E | G | G | F | G | F |
| P | E | E | F | E | E | E | F-G | E | E | E | E | G | G | G | G |
| P | F | G | M | E | VG | VG | VG | E | G | VG | G | G | G | G | G |
| — | — | E | — | — | — | G | — | — | — | G | — | — | — | E | — |
| P | F | G | M | E | VG | VG | VG | E | VG | VG | VG | G | G | G | G |
| — | — | E | — | — | — | G | — | — | — | G | — | — | — | VG | — |
| P | G | VG | F | E | VG | VG | G | E | VG | VG-E | VG | G | G | G | G |
| — | — | E | — | — | — | F | — | — | — | VG | — | — | — | VG | — |
| P | F | G | P-M | F-G | F | F | F | E | VG | VG | VG | G | G | F | F |
| — | — | E | — | — | — | F | — | — | — | F-G | — | — | — | VG | — |
| P | F | F | M | P | P | P | P | P | P | P | P | G | G | G | G |
| — | M | — | — | — | P | — | — | — | P | — | — | VG | — | — | — |
| P | G | VG | G | VG | G | VG | G | VG | G | G-VG | F-G | E | E | E | E |
| — | — | E | — | — | — | F-G | — | — | — | F-G | — | — | — | VG | — |
| P | G | VG | G | VG | F-G | G | G | VG | F-G | G | F-G | E | E | E | E |
| — | — | E | — | — | — | F-G | — | — | — | F-G | — | — | — | VG | — |

M—Moderate, P—Poor, ND—Not Dischargeable.

# DYER'S PERCENTAGE TABLES

**This table provides the practical dyer with a convenient method of converting percentages of dyestuffs into avoirdupois**

| % | For 10 Lbs. | For 50 Lbs. | For 100 Lbs. |
|---|---|---|---|
| 10 | 1 lb. | 5 lbs. | 10 lbs. |
| 9 | 14 oz. 175 gr.* | 4½ lbs. | 9 lbs. |
| 8 | 12 oz. 350 gr. | 4 lbs. | 8 lbs. |
| 7 | 11 oz. 87 gr. | 3½ lbs. | 7 lbs. |
| 6 | 9 oz. 263 gr. | 3 lbs. | 6 lbs. |
| 5 | 8 oz. | 2½ lbs. | 5 lbs. |
| 4 | 6 oz. 175 gr. | 2 lbs. | 4 lbs. |
| 3 | 4 oz. 350 gr. | 1½ lbs. | 3 lbs. |
| 2 | 3 oz. 88 gr. | 1 lb. | 2 lbs. |
| 1 | 1 oz. 263 gr. | 8 oz. | 1 lb. |
| 0.99 | 1 oz. 256 gr. | 7 oz. 403 gr. | 15 oz. 368 gr. |
| 0.98 | 1 oz. 249 gr. | 7 oz. 368 gr. | 15 oz. 298 gr. |
| 0.97 | 1 oz. 242 gr. | 7 oz. 333 gr. | 15 oz. 228 gr. |
| 0.96 | 1 oz. 235 gr. | 7 oz. 298 gr. | 15 oz. 158 gr. |
| 0.95 | 1 oz. 228 gr. | 7 oz. 263 gr. | 15 oz. 88 gr. |
| 0.94 | 1 oz. 221 gr. | 7 oz. 228 gr. | 15 oz. 18 gr. |
| 0.93 | 1 oz. 214 gr. | 7 oz. 193 gr. | 14 oz. 385 gr. |
| 0.92 | 1 oz. 207 gr. | 7 oz. 158 gr. | 14 oz. 315 gr. |
| 0.91 | 1 oz. 200 gr. | 7 oz. 123 gr. | 14 oz. 245 gr. |
| 0.90 | 1 oz. 193 gr. | 7 oz. 88 gr. | 14 oz. 175 gr. |
| 0.89 | 1 oz. 186 gr. | 7 oz. 53 gr. | 14 oz. 105 gr. |
| 0.88 | 1 oz. 179 gr. | 7 oz. 18 gr. | 14 oz. 35 gr. |
| 0.87 | 1 oz. 172 gr. | 6 oz. 420 gr. | 13 oz. 403 gr. |
| 0.86 | 1 oz. 165 gr. | 6 oz. 385 gr. | 13 oz. 333 gr. |
| 0.85 | 1 oz. 158 gr. | 6 oz. 350 gr. | 13 oz. 263 gr. |
| 0.84 | 1 oz. 151 gr. | 6 oz. 315 gr. | 13 oz. 193 gr. |
| 0.83 | 1 oz. 144 gr. | 6 oz. 280 gr. | 13 oz. 123 gr. |
| 0.82 | 1 oz. 137 gr. | 6 oz. 245 gr. | 13 oz. 53 gr. |
| 0.81 | 1 oz. 130 gr. | 6 oz. 210 gr. | 12 oz. 420 gr. |
| 0.80 | 1 oz. 123 gr. | 6 oz. 175 gr. | 12 oz. 350 gr. |
| 0.79 | 1 oz. 116 gr. | 6 oz. 140 gr. | 12 oz. 280 gr. |
| 0.78 | 1 oz. 109 gr. | 6 oz. 105 gr. | 12 oz. 210 gr. |
| 0.77 | 1 oz. 102 gr. | 6 oz. 70 gr. | 12 oz. 140 gr. |
| 0.76 | 1 oz. 95 gr. | 6 oz. 35 gr. | 12 oz. 70 gr. |
| 0.75 | 1 oz. 88 gr. | 6 oz. | 12 oz. |
| 0.74 | 1 oz. 81 gr. | 5 oz. 403 gr. | 11 oz. 368 gr. |
| 0.73 | 1 oz. 74 gr. | 5 oz. 368 gr. | 11 oz. 298 gr. |
| 0.72 | 1 oz. 67 gr. | 5 oz. 333 gr. | 11 oz. 228 gr. |
| 0.71 | 1 oz. 60 gr. | 5 oz. 298 gr. | 11 oz. 158 gr. |
| 0.70 | 1 oz. 53 gr. | 5 oz. 263 gr. | 11 oz. 88 gr. |
| 0.69 | 1 oz. 46 gr. | 5 oz. 228 gr. | 11 oz. 18 gr. |
| 0.68 | 1 oz. 39 gr. | 5 oz. 193 gr. | 10 oz. 385 gr. |
| 0.67 | 1 oz. 32 gr. | 5 oz. 158 gr. | 10 oz. 315 gr. |
| 0.66 | 1 oz. 25 gr. | 5 oz. 123 gr. | 10 oz. 245 gr. |
| 0.65 | 1 oz. 18 gr. | 5 oz. 88 gr. | 10 oz. 175 gr. |
| 0.64 | 1 oz. 11 gr. | 5 oz. 53 gr. | 10 oz. 105 gr. |
| 0.63 | 1 oz. 4 gr. | 5 oz. 18 gr. | 10 oz. 35 gr. |
| 0.62 | 434 gr. | 4 oz. 420 gr. | 9 oz. 403 gr. |
| 0.61 | 427 gr. | 4 oz. 385 gr. | 9 oz. 333 gr. |
| 0.60 | 420 gr. | 4 oz. 350 gr. | 9 oz. 263 gr. |
| 0.59 | 413 gr. | 4 oz. 315 gr. | 9 oz. 193 gr. |
| 0.58 | 406 gr. | 4 oz. 280 gr. | 9 oz. 123 gr. |
| 0.57 | 399 gr. | 4 oz. 245 gr. | 9 oz. 53 gr. |
| 0.56 | 392 gr. | 4 oz. 210 gr. | 8 oz. 420 gr. |
| 0.55 | 385 gr. | 4 oz. 175 gr. | 8 oz. 350 gr. |
| 0.54 | 378 gr. | 4 oz. 140 gr. | 8 oz. 280 gr. |
| 0.53 | 371 gr. | 4 oz. 105 gr. | 8 oz. 210 gr. |
| 0.52 | 364 gr. | 4 oz. 70 gr. | 8 oz. 140 gr. |
| 0.51 | 357 gr. | 4 oz. 35 gr. | 8 oz. 70 gr. |
| 0.50 | 350 gr. | 4 oz. | 8 oz. |

*Grains

| % | For 10 Lbs. | For 50 Lbs. | For 100 Lbs. |
|---|---|---|---|
| 0.49 | 343 gr. | 3 oz. 403 gr. | 7 oz. 368 gr. |
| 0.48 | 336 gr. | 3 oz. 368 gr. | 7 oz. 298 gr. |
| 0.47 | 329 gr. | 3 oz. 333 gr. | 7 oz. 228 gr. |
| 0.46 | 322 gr. | 3 oz. 298 gr. | 7 oz. 158 gr. |
| 0.45 | 315 gr. | 3 oz. 263 gr. | 7 oz. 88 gr. |
| 0.44 | 308 gr. | 3 oz. 228 gr. | 7 oz. 18 gr. |
| 0.43 | 301 gr. | 3 oz. 193 gr. | 6 oz. 385 gr. |
| 0.42 | 294 gr. | 3 oz. 158 gr. | 6 oz. 315 gr. |
| 0.41 | 287 gr. | 3 oz. 123 gr. | 6 oz. 245 gr. |
| 0.40 | 280 gr. | 3 oz. 88 gr. | 6 oz. 175 gr. |
| 0.39 | 273 gr. | 3 oz. 53 gr. | 6 oz. 105 gr. |
| 0.38 | 266 gr. | 3 oz. 18 gr. | 6 oz. 35 gr. |
| 0.37 | 259 gr. | 2 oz. 420 gr. | 5 oz. 403 gr. |
| 0.36 | 252 gr. | 2 oz. 385 gr. | 5 oz. 333 gr. |
| 0.35 | 245 gr. | 2 oz. 350 gr. | 5 oz. 263 gr. |
| 0.34 | 238 gr. | 2 oz. 315 gr. | 5 oz. 193 gr. |
| 0.33 | 231 gr. | 2 oz. 280 gr. | 5 oz. 123 gr. |
| 0.32 | 224 gr. | 2 oz. 245 gr. | 5 oz. 53 gr. |
| 0.31 | 217 gr. | 2 oz. 210 gr. | 4 oz. 420 gr. |
| 0.30 | 210 gr. | 2 oz. 175 gr. | 4 oz. 350 gr. |
| 0.29 | 203 gr. | 2 oz. 140 gr. | 4 oz. 280 gr. |
| 0.28 | 196 gr. | 2 oz. 105 gr. | 4 oz. 210 gr. |
| 0.27 | 189 gr. | 2 oz. 70 gr. | 4 oz. 140 gr. |
| 0.26 | 182 gr. | 2 oz. 35 gr. | 4 oz. 70 gr. |
| 0.25 | 175 gr. | 2 oz. | 4 oz. |
| 0.24 | 168 gr. | 1 oz. 403 gr. | 3 oz. 368 gr. |
| 0.23 | 161 gr. | 1 oz. 368 gr. | 3 oz. 298 gr. |
| 0.22 | 154 gr. | 1 oz. 333 gr. | 3 oz. 228 gr. |
| 0.21 | 147 gr. | 1 oz. 298 gr. | 3 oz. 158 gr. |
| 0.20 | 140 gr. | 1 oz. 263 gr. | 3 oz. 88 gr. |
| 0.19 | 133 gr. | 1 oz. 228 gr. | 3 oz. 18 gr. |
| 0.18 | 126 gr. | 1 oz. 193 gr. | 2 oz. 385 gr. |
| 0.17 | 119 gr. | 1 oz. 158 gr. | 2 oz. 315 gr. |
| 0.16 | 112 gr. | 1 oz. 123 gr. | 2 oz. 245 gr. |
| 0.15 | 105 gr. | 1 oz. 88 gr. | 2 oz. 175 gr. |
| 0.14 | 98 gr. | 1 oz. 53 gr. | 2 oz. 105 gr. |
| 0.13 | 91 gr. | 1 oz. 18 gr. | 2 oz. 35 gr. |
| 0.12 | 84 gr. | 420 gr. | 1 oz. 403 gr. |
| 0.11 | 77 gr. | 385 gr. | 1 oz. 333 gr. |
| 0.10 | 70 gr. | 350 gr. | 1 oz. 263 gr. |
| 0.09 | 63 gr. | 315 gr. | 1 oz. 193 gr. |
| 0.08 | 56 gr. | 280 gr. | 1 oz. 123 gr. |
| 0.07 | 49 gr. | 245 gr. | 1 oz. 53 gr. |
| 0.06 | 42 gr. | 210 gr. | 420 gr. |
| 0.05 | 35 gr. | 175 gr. | 350 gr. |
| 0.04 | 28 gr. | 140 gr. | 280 gr. |
| 0.03 | 21 gr. | 105 gr. | 210 gr. |
| 0.02 | 14 gr. | 70 gr. | 140 gr. |
| 0.01 | 7 gr. | 35 gr. | 70 gr. |

## DIRECTIONS FOR USE

If 60 lbs. of material is to be dyed with 1.69% of color, proceed as follows:

For 10 lbs., 1% equals 1 oz. 263 gr.
For 50 lbs., 1% equals 8 oz.

For 60 lbs., 1% equals 9 oz. 263 gr. 9 oz. 263 gr.

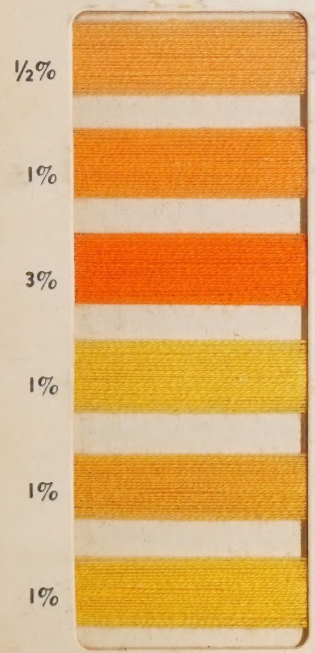
For 10 lbs., 0.69% equals 1 oz. 46 gr.
For 50 lbs., 0.69% equals 5 oz. 228 gr.

For 60 lbs., 0.69% equals 6 oz. 274 gr. 6 oz. 274 gr.

1.69% 15 oz. 537 gr. or 1 lb. 99 gr.

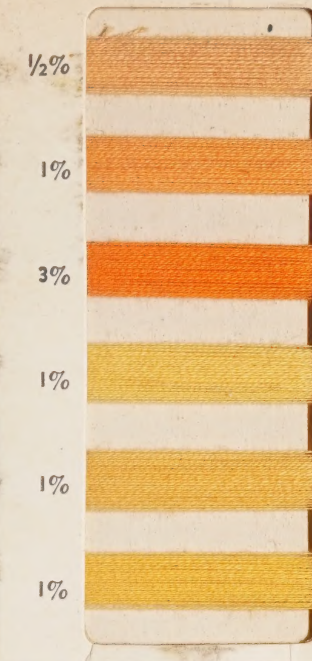
## National Diazine Fast Yellow 2G

## National Developed Brilliant Orange 5G Extra

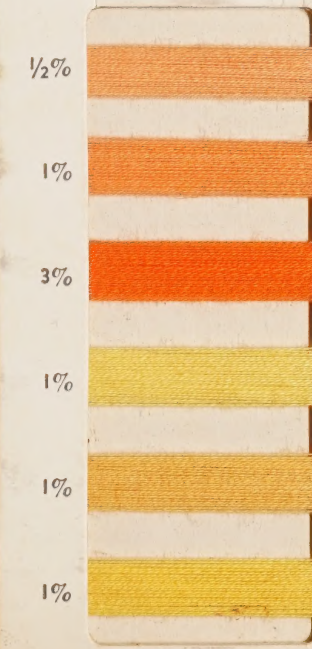



A

## National Diazine Orange 3G

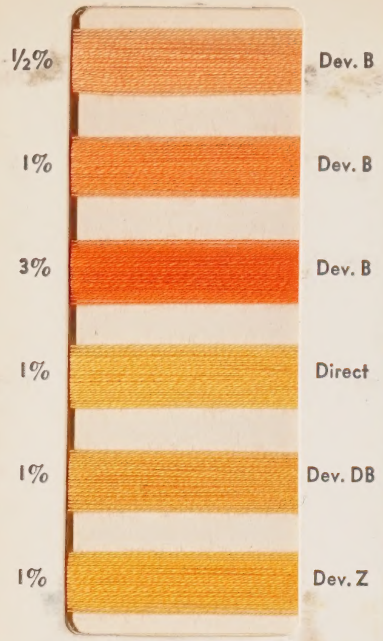



## National Diazine Orange G

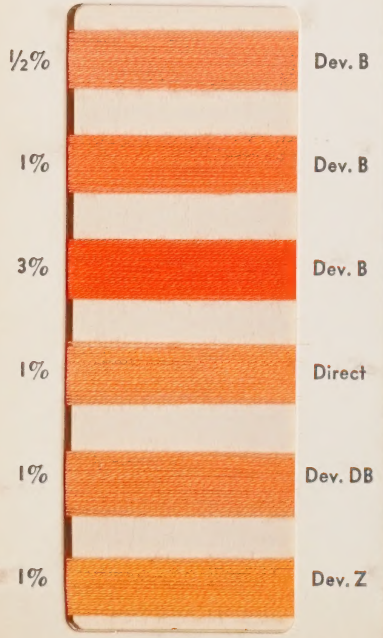



B

## National Diazine Orange WD

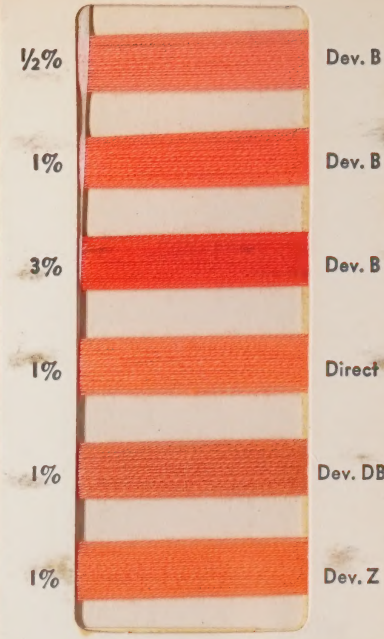



## National Diazine Orange

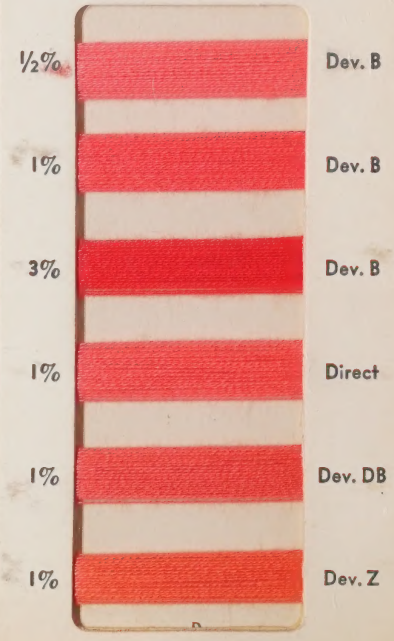



C

## National Diazine Orange 2R




## National Diazine Scarlet R




D

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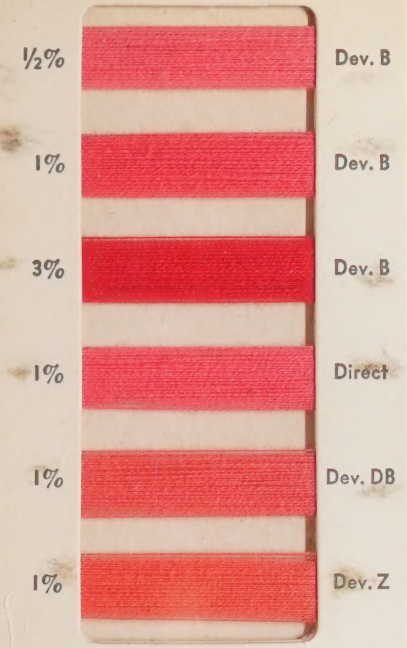
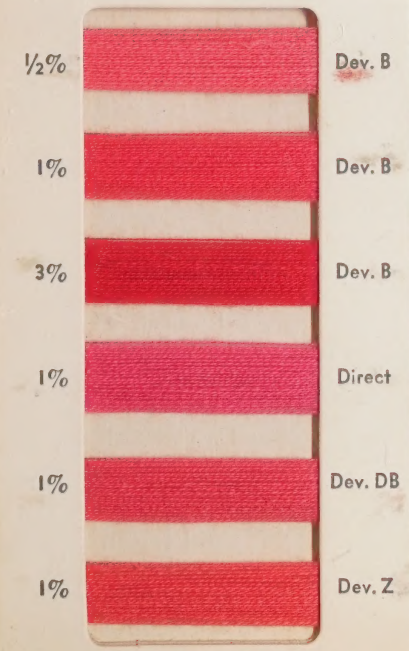
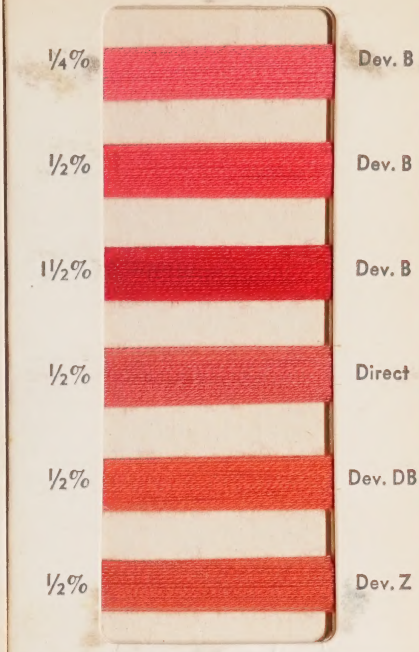



## National Diazine Red 5BL

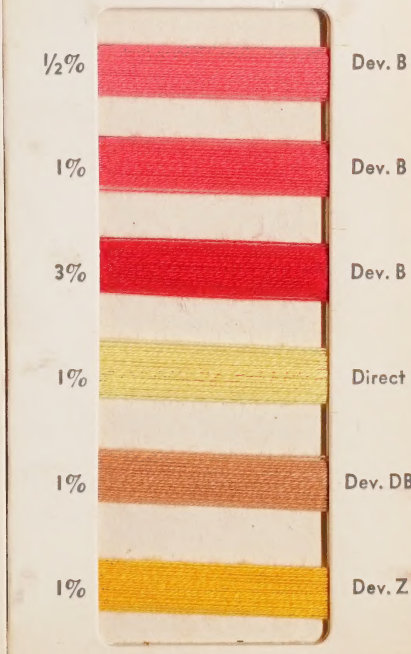



E

## National Diazine Scarlet 2BL

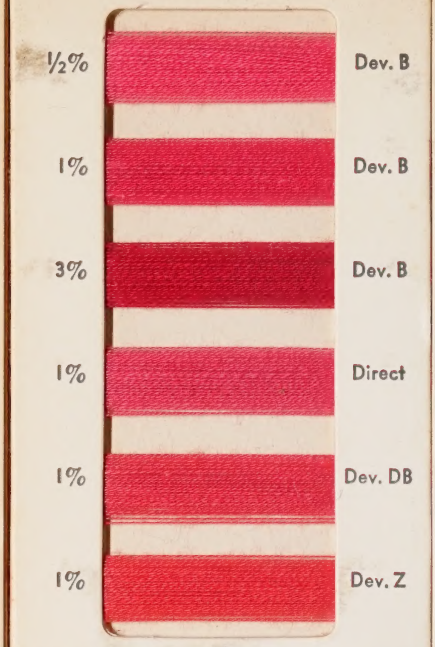



## National Primuline NAC



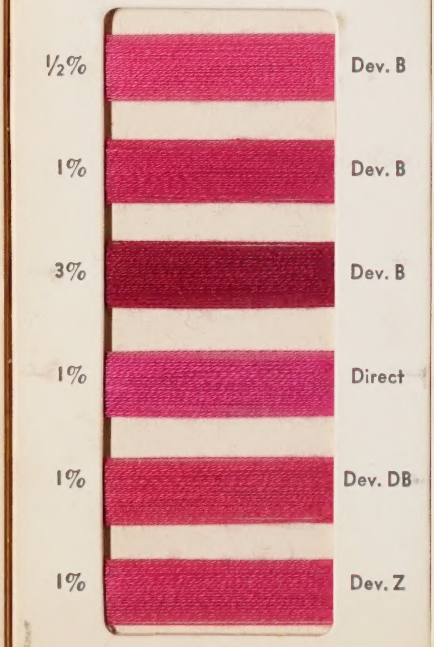

F

## National Diazine Red 7BL



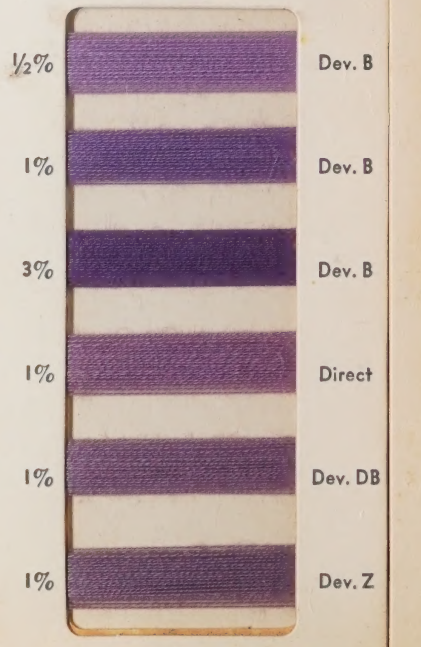

## National Diazine Bordeaux 7B Conc.

## National Diazine Bordeaux 2BL



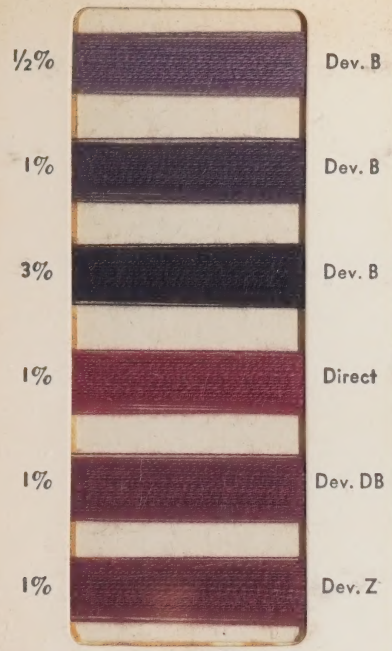

G

## National Diazine Violet BL

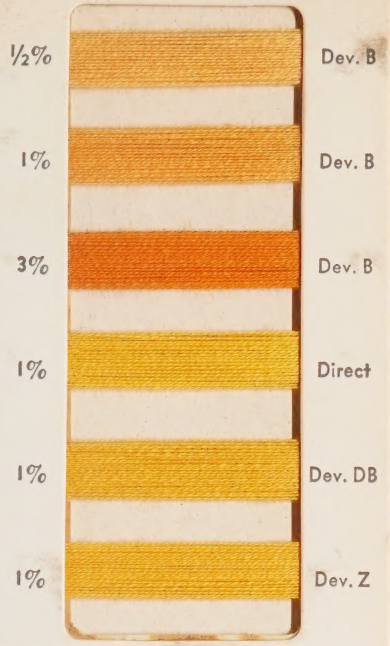



H

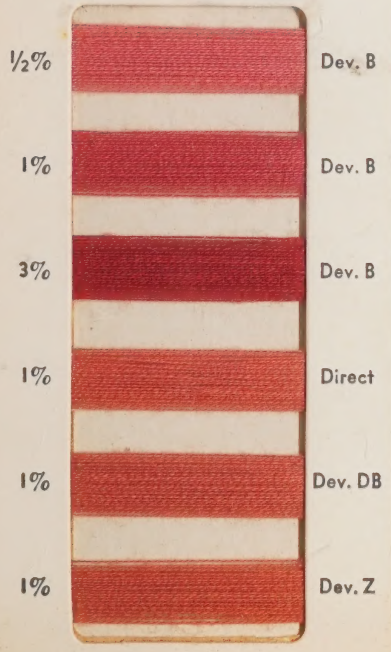
## National Erie Fast Brown 3RB



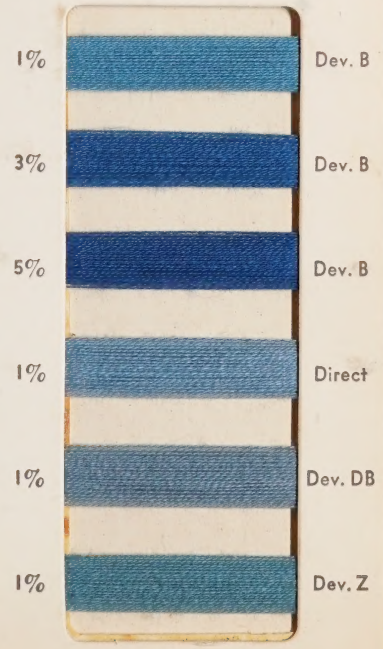

## National Diazine Brown 6G



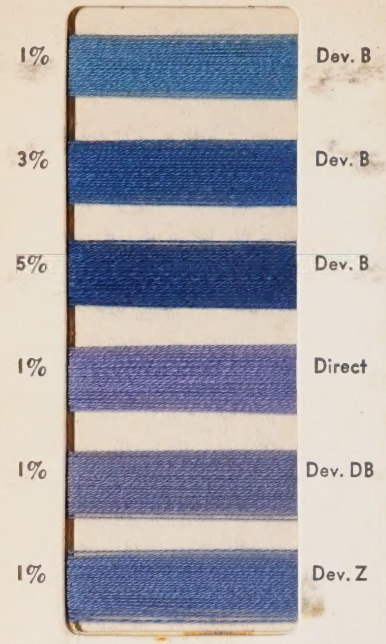

## National Diazine Brown R




## National Developed Brilliant Blue BBL

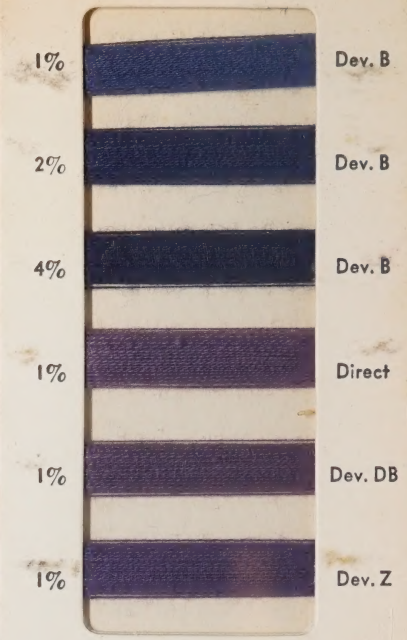


## National Developed Sky Blue 3G

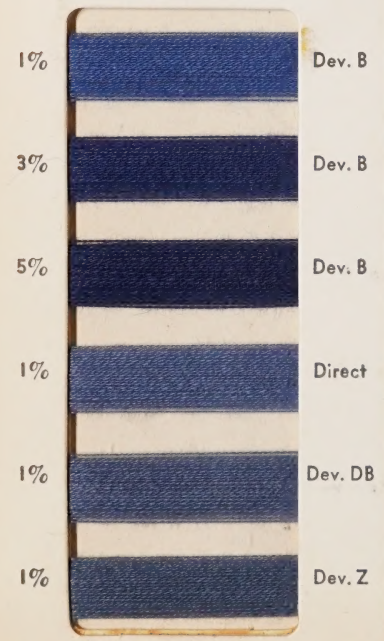



K

## National Diazine Blue NA Conc.

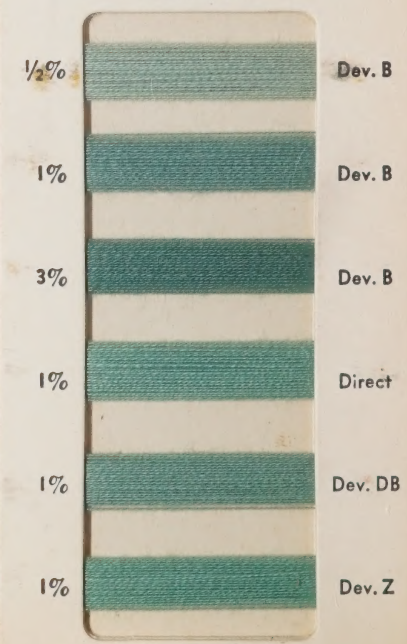



## National Diazine Blue BR



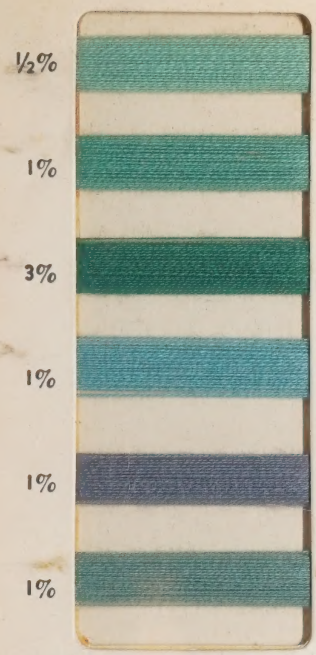

K

## National Diazine Green 3G

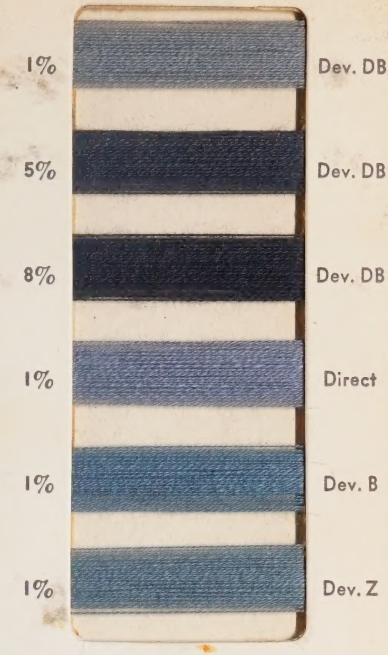



L

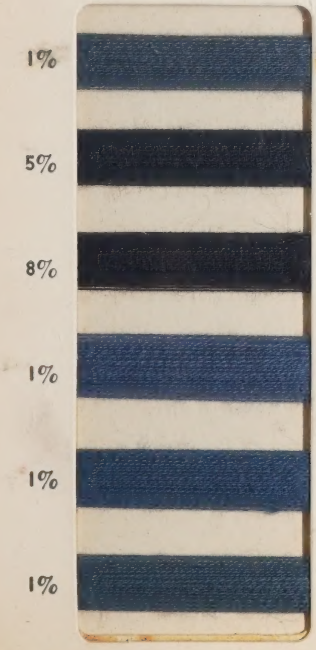
## National Developed Brilliant Green 3G




## National Diazine Black S Extra

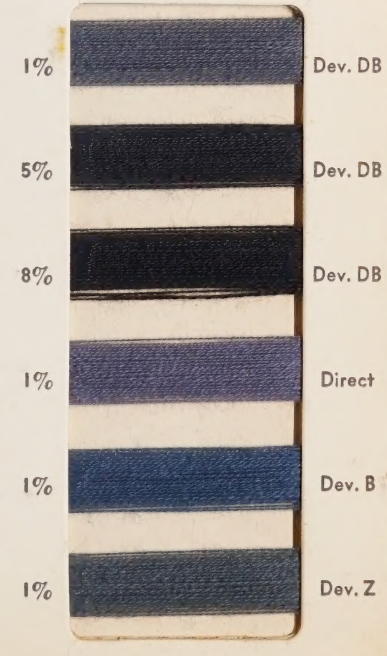



## National Diazine Black OB



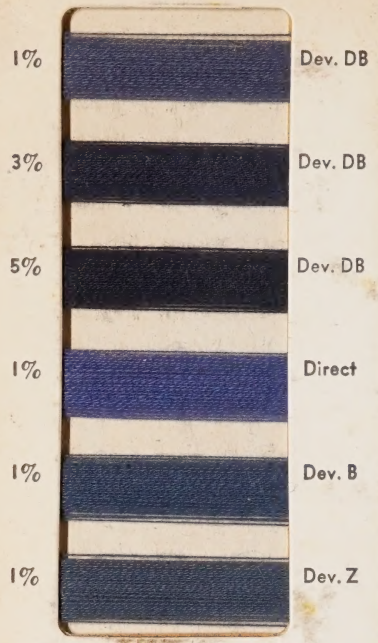

M

## National Diazine Black DR




N

## National Diazine Black H Extra




O

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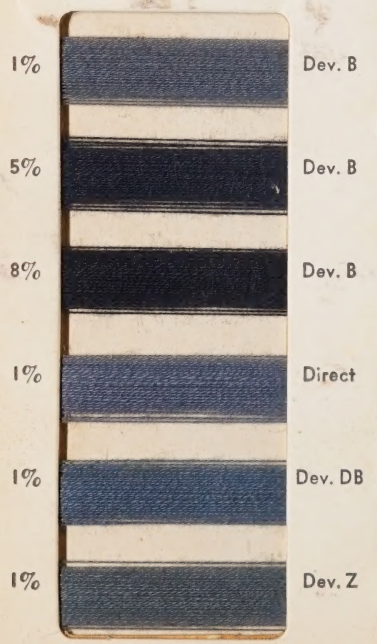
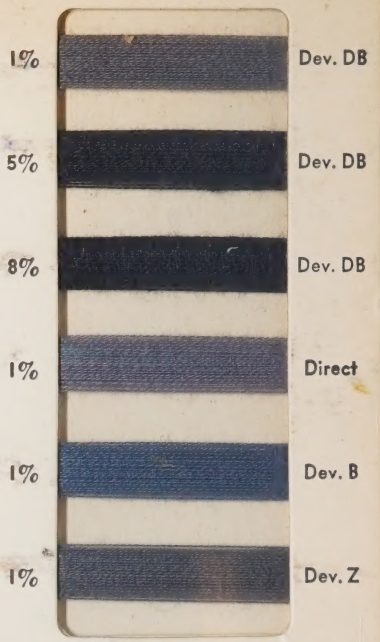
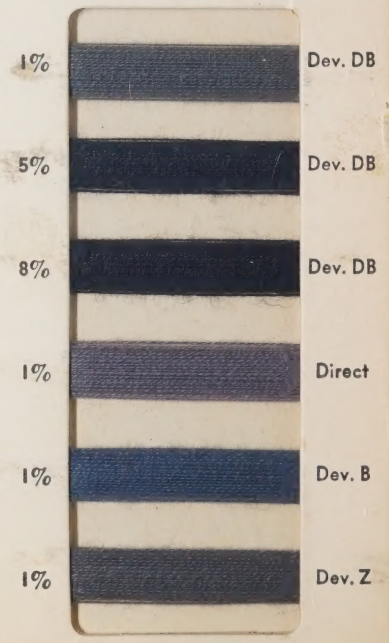



## National Diazine Black V




P

## National Diazine Black VJ Conc.



# NATIONAL SERVICE

THE National Aniline & Chemical Company, Inc., is convinced that the essence of all good-will is intelligent service.

In accordance with this conviction, the National Aniline & Chemical Company, Inc., maintains a fully equipped laboratory, a trained technical staff, and an experienced sales organization at each branch office. This practical dyeing service is freely placed at the disposal of its customers for the matching of shades and for assistance in the solution of dyeing problems.

Shade cards, illustrating the application of National Dyes on all classes of materials are prepared and distributed to those interested in dyeing.

The improvement of dyeing technique is the key-note of National Service.

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